

QUALITATIVE MEASURES OF THE RESPONSIVENESS OF POSTSECONDARY TECHNICAL PROGRAMS TO THE NEEDS OF INDUSTRY

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Abstract: Institutional responsiveness is a measure of how responsive an institution is to its market. The market includes all stakeholders (students, businesses, and the community). Several major issues were examined in this study, including responsiveness to the labor market, job placement, graduation rate, and quality of program. Implications from this study should be quite useful to IVETA and members of our global community. The study was funded by a grant from the Pennsylvania Bureau of Vocational Technical Education under the auspices of the Carl D. Perkins Vocational Education Act (Public Law 105-332-Oct. 31, 1998).

INTRODUCTION

A fundamental question that continues to be a major issue in the delivery of postsecondary technical and occupational education programs is: how responsive are community colleges and two-year proprietary institutions to the labor market in establishing appropriate programs? We are aware that American business and industry need a highly skilled workforce in order to compete in a global economy, community colleges and other two-year post-secondary institutions are in the best position to fulfill that need (Grubb, 1996; Farmer & Key, 1997; McCabe, 1997; and Bragg, 1998). We also are aware that 65% of jobs in the new millennium will require more than a high school education but less than a 4-year college degree (Gray & Herr, 1995). Nevertheless, the question concerning institutional responsiveness to the labor market continues to be debatable among stakeholders.

In the state of Pennsylvania there is a critical need for postsecondary technical education data in areas such as program outcome and follow-up measures to include employment trends and types of training provided to graduates of two-year institutions, both public and private. In the Commonwealth, there is also a need to provide legislators and educational leaders with appropriate information to make appropriate decisions on the management of post-secondary technical education. Therefore, the purpose of this study was to conduct a series of case studies in order to provide an in-depth understanding of postsecondary technical and occupational education programs in community colleges and two-year proprietary institutions in Pennsylvania. The study was divided into three phases: Planning and Organization, Implementation, and Follow-up. This paper describes the results of the third phase that involved follow-up measures of postsecondary technical and occupational education programs in Pennsylvania.

CONCEPTUAL FRAMEWORK

The design of all research requires conceptual organization, ideas to express needed understanding, conceptual bridges from what is already known, cognitive structures to guide data gathering, and outlines for presenting interpretations to others (Stake, 1995). The framework for this study is based on the state-of-the-art principles in Stake's work, *The Art of Case Study Research*. Actually, the case study is a compromise between Ethnography and Grounded Theory; both are qualitative methods that are suited for different purposes. Ethnography gives us the richest understanding of the culture and ethos of a particular program, event, etc., but it is very time consuming and has very limited generalizability. On the other hand, Grounded Theory promises greatest generalizability among qualitative research methods but is often quite costly and time consuming. The case study does not give as rich an understanding as Ethnography, and it is less costly and time consuming than Grounded Theory.

METHODOLOGY

A qualitative research perspective was employed using the case study approach. This approach was considered the best methodology for addressing the magnitude of issues that exist in Pennsylvania's two-year postsecondary institutions that offer technical and occupational education programs. Moreover, the case study approach was selected because this study focused more on insight, discovery, and interpretation rather than hypothesis testing. Other researchers concur with the author in using this approach. For example, Grotelueschen (1980) offers an essential reason for choosing a case study design when doing evaluation or follow-up measures: "case study is appropriate when the objective of an evaluation is to develop a better understanding of the dynamics of a program. When it is important to be responsive, to convey a holistic and dynamically rich account of an education program, case study is a tailor made approach." Gall, Borg, and Gall (1996) stated that a case study is done to shed light on a phenomenon, which is the processes, events, persons, or things of interest to the researcher. Some examples of phenomena are programs, curricula, roles, and events. Once the phenomenon of interest is clarified, the researcher can select a case for intensive study (Gall, Borg, and Gall, 1996). However, a case is a particular instance of the phenomenon. Finally, Merriam (1988) reinforced the assertion that the case study is particularly suitable for dealing with critical issues of practice and extending the knowledge base of various aspects of education.

DATA SOURCES

A project research team was organized to conduct five case studies of selected urban and rural community colleges and two-year proprietary institutions in Pennsylvania. The project research team consisted of a project director, qualitative researcher/consultant, and three graduate research assistants. Using the following procedure, the project research team: (a) received formal instruction on case study research from the qualitative researcher, (b) selected appropriate case study locations, (c) conducted on-site observations, (d) debriefed with the qualitative researcher, (e) refined field notes, (f) transcribed tape recordings of interviews, and (g) analyzed data using triangulation and Atlas software. The selection of the institutions was based on four essential characteristics: location, financial aid available, academic reputation/quality, and support services available. The five case studies were designed to investigate two qualitative research questions: (a) how responsive is the institution in establishing appropriate technical and occupational education programs, based on the needs of the labor market? and (b) how responsive is the institution in providing effective instruction?

In reference to site and sample selection, five institutions were chosen for their unique qualities. The specific qualities of each institution are described as follow: (a) Northampton Community College is located in a rural area and it is a residence campus; (b) Delaware Community College is also located near the suburban area of Philadelphia and is unique because of its exceptional facilities for individuals with disabilities; (c) Bradley Academy for the Visual Arts was chosen because it is a proprietary institution with a distinguished reputation in visual arts; (d) Pittsburgh School of Aeronautics was chosen because it was also a well known proprietary institution in another geographical location; and (e) Community College of Allegheny County was chosen because it is the largest and most influential among the community colleges in Pennsylvania.

TRIANGULATION OF DATA

A major strength of case study data collection is the opportunity to use many different sources of evidence (Yin, 1994). The triangulation data collection procedure was used to review, analyze, and verify the institutions ability to be responsive to their labor market. According to Yin (1994), triangulation is a strategy that allows different qualitative research methods to be combined. Moreover, Miles and Huberman (1994) suggested that by looking at a range of similar and contrasting cases, a single-case finding could be understood. Other researchers have also concurred that the combination of three or more research methods through triangulation provides a greater assurance of validity within a study (Bogdan & Bilken, 1992; Maxwell, 1992; Yin, 1994).

FINDINGS

The results of the case studies revealed many useful findings regarding the responsiveness of community colleges and two-year proprietary institutions to the needs of the labor market, graduation rate, job placement, and quality of programs. Lauch Faircloth's, United States Senator (Republican-North Carolina), public statement expressed the essence of the findings. He stated, "community colleges are the only job training program I have ever seen the federal government put its money into that works." Moreover, President Bill Clinton articulated the importance of community colleges for all Americans in his speech at Gulf Coast Community College in Panama City, Florida. The President stated: "I believe America ought to work the way the community colleges in America work. I believe they are the ultimate democratic institution, small "d"; open to everybody, where everybody has a chance; results-oriented; flexible, not bureaucratic; and working in partnership with the private sector; and guaranteeing opportunity for everybody who is responsible enough to seek it" (Clinton, 1996).

The findings from the five studies revealed four major themes: policy issues, student profiles, labor market issues, and curriculum content. In the area of policy issues, it was revealed that Pennsylvania experienced a brain drain, the migration of 13,500 labor force age adults (20 to 29 age group), between 1995 and 1997. Policy is needed to provide incentives to prevent this migration of human capital. Student profile data showed that male students outnumbered female students in postsecondary technical programs. This particular finding is inconsistent with national data that shows there are more female students (52%) than male students (48%) in community colleges. Public opinion supports the belief that students attending community colleges do so with the intention of transferring to a four-year institution. However, the findings revealed a different picture; most of the postsecondary technical students indicated that their career goal was to enter the labor force upon graduating from their respective programs. In the area of labor market issues, most of the students were interested in completing some of the "hot" technical programs, i.e., computer-related technologies. The "hot" programs represent the technical skill areas that are critical for high

technology and nationally competitive industry and businesses. The final theme related to curriculum content, most of the postsecondary institutions had begun incorporating tech prep and school-to-work initiatives to improve their curriculum. The results of the curriculum inclusion have been positive because community colleges are starting to receive recognition for their product—the student. The graduates of community colleges are making a favorable impact in the workplace, as indicated by noteworthy business leaders.

One of the most successful business leaders in America, Bill Gates, CEO of Microsoft, recently expressed his approval of community colleges in preparing persons for the workforce. Gates stated that “America is leading the way in high technology and in the next seven years it’s estimated that 80 percent of new jobs in this country will be in high tech. Community colleges have an important role to play in making certain we have skilled workers ready to help businesses take advantage of all the opportunities in the Digital Age.” Jim Adams, chairman of Texas Instruments, indicated “the community college system is an absolutely imperative part of the fabric of education in this country. It’s the thing that will help us be competitive leaders in the world, and corporations like mine have to retain a competitive leadership throughout the United States and throughout the world.” The job placement rate in community colleges is very impressive; community college leaders indicated that the vast majority of the graduates obtain employment.

On the other hand, however, the graduation rate is not impressive. In actuality, the graduation rate for community college students in postsecondary technical degree programs is less than 40 %. The low percentage may be attributed to: (a) part-time enrollment of non-traditional students, (b) students transferring after one year to a four-year college or university, and (c) students being employed in their career area before graduation and deciding not to complete the degree requirements

The question surrounding institutional responsiveness, concerning the quality of programs in community colleges, may be best expressed by two of their famous graduates, Kweisi Mfume, President of the National Association for the Advancement of Colored People (NAACP) and Norman Rice, former mayor of Seattle. Mr. Mfume stated “my tenure at CCB (Community College of Baltimore) was undoubtedly one of the most memorable times of my life. It was there that I began to stop dreaming about the goals I would achieve and instead set forth a plan to make them happen.” Another famous graduate, Norman Rice, former Mayor of Seattle, stated “community college prepared me and gave me the confidence I needed...community colleges are a great bridge, a bridge from high school to college, from welfare to work...”

IMPLICATIONS

Although the case studies were oriented entirely to the needs and idiosyncrasies of the Commonwealth of Pennsylvania, they have international implications for the ways in which postsecondary technical education programs in community colleges and two-year proprietary institutions are managed and delivered. As leaders in IVETA, we know that a well-educated and technically trained workforce is essential to the growth and development of a nation. Moreover, global competition in the marketplace will intensify the demand for all nations to possess an increasingly competitive workforce. The high performance demands of the new millennium and the rapid technological changes in the workplace dictate a need for technically skilled workers with high-tech employability skills.

The results from this study may help educational leaders and policymakers who frequently make more informed decisions regarding the future of educational programs based. For example reliable data regarding graduates and their job placement and rate, graduation rate, and the overall quality of their respective programs would be useful data for educational leaders in the global marketplace. Moreover, the results from this study may stimulate the thinking of business and educational leaders

in the global marketplace with policy ideas to develop a management information system to assist employers with personnel management decisions regarding recent graduates of postsecondary technical programs.

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